

REMARKS

Applicant has reviewed and considered the Office Action mailed on September 20, 2007, and the references cited therewith.

Claims 29-32 have been added, claims 1-6, 17-19, 21-23, 25, and 27-28 have been amended, and claims 7-16, 20, 24, and 26 have been canceled; as a result, claims 1-6, and 17-19, 21-23, 25, and 27-32 are pending in this application, with claims 1, 17, 21, and 29 being independent.

Claim 1 has been amended to recite, “a multiplier coupled to the retimer, the multiplier being configured to apply an equalization coefficient to the recovered equalized data to generate the equalized feedback signal; wherein the clock and data recovery circuit is configured to iterate the equalization coefficient until the clock and data recovery circuit synchronizes with a frequency of the equalized data.” This amendment finds support, for example, in now-canceled claim 7, as well as on page 7, line 24 to page 8, line 7, page 9, lines 27-33, and page 10, lines 11-15 of the specification.

Claim 2 has been amended to delete the recitation, “to reduce the channel related distortion.”

Claims 5 and 6 have been amended to change “binary signal” to “reference signal.” This amendment finds support, for example, in FIG. 5, as well as on page 9, lines 27-33 of the specification.

Claim 17 has been amended to delete the recitation, “adapted to reduce channel related distortion in received data, the decision feedback equalizer.” Claim 17 has also been amended to recite that the clock and data recovery circuit is configured to “vary the equalization coefficient based on a difference between a divided frequency of the extracted clock signal and a frequency of the reference clock.” This amendment finds support, for example, on page 9, lines 27-30 and page 10, lines 11-15 of the specification.

Claims 18 and 19 have been amended to change “binary signal” to “reference clock.” This amendment finds support, for example, in FIG. 5.

Claim 21 has been amended to recite that the binary signal is generated according to the received data “and a feedback signal.” This amendment finds support, for example, in FIG. 4, and on page 5, lines 26-32 of the specification. Claim 21 has also been amended to recite that

the binary signal is retimed “by multiplying the feedback signal by an equalization coefficient based on a frequency difference between a reference clock and the clock signal.” This amendment finds support, for example, on page 9, lines 27-33, and on page 10, lines 11-15 of the specification.

Claims 22, 23, and 25 have been amended to change “binary signal” to “reference clock.” This amendment finds support, for example, in FIG. 5, as well as on page 9, lines 27-33 of the specification.

Claim 27 has been amended to delete the recitation, “the decision feedback equalizer further comprises a multiplier configured to scale the recovered equalized data by an equalization coefficient.”

Claim 28 has been amended to delete the recitations, “the decision feedback equalizer further comprises a multiplier coupled to the retimer, the multiplier being configured to apply an equalization coefficient to the recovered equalized data to generate the equalized feedback signal,” and that the clock and data recovery circuit “further comprises a frequency lock detector.”

Newly added claim 29 recites, “A receiver comprising: a decision feedback equalizer configured to receive data and generate recovered equalized data based on the received data and an equalized feedback signal, the equalized feedback signal being based on the recovered equalized data and an equalization coefficient; and a clock and data recovery circuit configured to control the equalization coefficient based on a signal which combines the received data with the equalized feedback signal and a reference clock.” This claim finds support, for example, in FIGs. 4 and 5, on page 5, line 26 to page 6, line 6, and on page 9, line 27 to page 10, line 15 of the specification. Newly added claims 30-32 find support at least in these same figures and portions of the specification.

Other amendments have been made to correct matters of form.